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WAR FINANCE IN 1940, 1941 AND 1942

1. The purpose of this paper is to give an analysis of the sources of war finance on the basis of the White Paper (Cmd. 6438). The argument follows much the same lines as in the paper on this subject published last year.[1] The results of the analysis are presented in Table I. The differences in the figures in this and last year's article are due to the revision in the present White Paper of estimates given in the preceding one. The significance of the first four main items in Table I for financing Government expenditure (Excess of personal incomes over personal consumption, Business income undistributed to persons, Surplus of public funds, and Indirect taxes and miscellaneous Government income) is straightforward. However, the various types of disinvestment which come next require some explanation. Private disinvestment at home, except war damage, means the excess of the depreciation of privately owned fixed capital over privately financed new investment in fixed capital, sales of fixed capital assets to public authorities, and the reduction in the value of privately financed stocks (calculated at cost) except that caused by war damage. All this disinvestment provides firms and persons with funds which are lent to the Government directly or indirectly. The same is true of disinvestment in fixed capital and stocks due to war damage in so far as it is compensated. Private disinvestment abroad results in similar transactions to

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[1] BULLETIN Vol. 4, No. 8.

disinvestment at home. The proceeds of sales of foreign privately owned assets supply the owners with funds which are lent to the Government directly or indirectly. Finally, Government disinvestment abroad consists of the loss of gold and foreign balances by the Exchange Equalisation Fund, which absorbs to the same extent Government securities, and foreign loans to the Government (sterling balances of the Dominion Central Banks and Reconstruction Finance Corporation Loan).

The Lease and Lend assistance and the expenditure equivalent to the Canadian contribution are excluded from Government expenditure. If imports from the U.S.A. and Canada were the same but Lease and Lend aid and the Canadian contribution were not in existence, both Government expenditure and foreign disinvestment would be higher by this amount.

TABLE I

Revenue and Borrowing of the Central Government £ million

	1938	1940	1941	1942
Direct tax payments to the Central Government out of personal incomes§	330	477	645	755
Personal Savings*	241	807	1004	1271
Excess of personal incomes† over personal consumption ...	*571*	*1284*	*1649*	*2026*
Direct taxes paid by enterprises	77	172	422	602
Undistributed profits	182	358	413	338
Business income undistributed to persons	*259*	*530*	*835*	*940*
Surplus of extra budgetary funds‡	22	148	122	163
Surplus of local authorities	7	38	66	80
Surplus of public funds‡	*29*	*186*	*188*	*243*
Central Government indirect taxes	372	502	705	883
Miscellaneous income of the Central Government ...	22	23	34	70
Indirect taxes and miscellaneous Government income ...	*394*	*525*	*739*	*953*
Compensation for war damage	—	36	248	215
Private disinvestment at home except war damage ...	—287	22	200	173
Total private home disinvestment	*—287*	*58*	*448*	*388*
Private and Government disinvestment abroad	*55*	*756*	*797*	*632*
Central Government revenue§ and borrowing	**1021**	**3339**	**4656**	**5182**

* Before paying death duties and stamps on the transfer of property.

† After deduction of contributions to social insurance, estimated roughly.

‡ Exclusive of the surplus arising out of contributions and payments under the War Damage Act (taken from Budget returns).

§ Inclusive of contributions under the War Damage Act.

Expenditure of the Central Government £ million

	1938	1940	1941	1942
Central Government expenditure on goods, services, and compensation for war damage	464	2680	3871	4333
Transfers	318	343	394	441
Subsidies	15	70	142	150
Transfers to other authorities	224	246	249	258
Central Government Expenditure	**1021**	**3339**	**4656**	**5182**

2. In last year's article on War Finance (mentioned above) it was argued at some length that the above table cannot give us any indication of an 'inflationary gap'. The two sides of the balance sheet must agree; any increase in expenditure is always automatically balanced by an increase in savings, tax revenue or disinvestment. The only item which could signify a 'gap' is private home disinvestment, in particular to the extent to which it relates to the reduction of stocks. The White Paper does not contain any estimates of this part of home disinvestment. We shall try here to make a hypothetical calculation of the order of magnitude of this item.

It must first be remembered that the White Paper figures reflect changes in the *value* of stocks. As prices were increasing throughout the period considered, the reduction in the value of stocks calculated at purchase cost was much smaller than if stocks at the beginning and at the end of the year were valued at the same prices. Mr. Barna has estimated that the reduction in the *volume* of stocks multiplied by the average prices of a given year was higher than the reduction in the *value* of stocks by about £400 million in 1940 and £150 million in 1941.[1] For 1942 this adjustment may be roughly estimated at £50 million. If we add these amounts to the White Paper figures of disinvestment we obtain about: £420 million in 1940, £350 million in 1941 and £220 million in 1942.

As indicated above, home disinvestment (not due to war damage) may be subdivided into the following three categories: excess of depreciation of privately owned fixed capital over privately financed new investment in fixed capital; sales of fixed capital assets to public authorities; and depletion in privately financed stocks. The value of depreciation in 1938 has been estimated at about £450 million. No doubt in war-time some part of depreciation has not been made good. As, however, some replacement is always taking place, and in war industries, probably to the full extent, private investment in fixed capital cannot be assumed to have fallen very considerably below this level. For 1941 and 1942 it may then be assumed at a guess that private gross investment in fixed capital was of the order of £300 million at 1938 prices, which makes something like £400 million at current prices. We shall assume the same figure at current prices for 1940, which means only a slightly higher figure in real terms for 1940 than for the two subsequent years. This may be justified by the fact that although deliveries of new fixed capital were higher in 1940 than in 1941 and 1942, there was a strong diminution of the fixed capital under construction in that year because the rate of deliveries diminished rapidly from the beginning to the end of the year. From the assumption that gross investment in private fixed capital was at the rate of £400 million per year throughout the period considered and that depreciation was £450 million a year, it follows the rate of disinvestment in fixed capital was £50 million a year. If we add to this figure the sale of fixed assets to public authorities, we shall obtain probably something of the order of £100—150 million per year. If we deduct this figure from the corrected home disinvestment we obtain for depletion of privately financed stocks for 1940, 1941 and 1942 something of the order of £300 million, £200 million and £100 million. It is hardly necessary to add how very much of a guess these figures are. Apart from our hypothetical assumptions there is a great degree of uncertainty in Mr. Barna's adjustments. We shall reduce somewhat the uncertainty of the figures if we consider the depletion of stocks for the three years together, which, according to the above, was £600 million from the beginning of 1940 to the end of 1942 at current prices.[1] At 1938 prices the depletion of stocks over these three years would then amount to something like £400 million. We shall now try to check whether this figure is reasonable.

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[1] *Economica* November 1942 p. 351.

It is plausible to assume that a substantial part of the depletion of stocks was due to the reduction of working capital in the production for export and in manufacturing of non-food consumption goods (exclusive of drink and tobacco) for the home market. It may be roughly estimated that the value of non-food home consumption at wholesale prices plus exports was in 1938 of the order of £1,150 million.[2] It may be further estimated that in 1942 the value of these two items at 1938 prices was something like £450 millon.[2]

It may be concluded that from the beginning of 1940 to the end of 1942 exports and non-food home consumption fell by something like £700 million at 1938 prices. It may be further estimated that working capital and stocks in the manufacture of the products in question amounted in 1938 to something like six months' value of exports *plus* non-food home consumption at wholesale prices.[3] Thus if inventories had fallen proportionately to the output of finished goods in question,[4] the resulting reduction in working capital and stocks would amount to £350 million. This figure is to be compared with the total depletion of stocks estimated hypothetically above at £400 million. For this comparison it must be remembered however that £350 million relates to manufacturing industry only, while there was no doubt some reduction in inventories of traders as well. On the other hand there was no doubt some increase in the privately financed working capital of Government contractors and if this factor were eliminated the figure of depletion of stocks would be correspondingly increased. The only thing we can say in these circumstances is that the two figures obtained as a result of the preceding discussion are by no means contradictory.

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[1] There is a special reason which favours such a procedure. If stocks are valued at cost that part of them which has not been turned over remains unchanged in value. Mr. Barna in calculating his adjustment could not have taken into account this factor. As a result his adjustment for 1940 may be substantially too high because in that year there were probably still ample reserve stocks and the increase in prices was steep. It is further likely that the stocks not turned over in 1940 were used and (partly) replaced in 1941 and 1942 and therefore the figures of adjustment for those years are too low.

[2] These estimates have been made on the same lines as those given in ' Sources of Manpower in the British War Sector ' Bulletin Vol. 5, No. 1, taking into account the new data given in the current White Paper.

[3] The total wholesale value of the output of finished products of manufacturing industry in 1938 may be estimated roughly at £2,300 million. (By finished products we mean here all products which are not sold as raw materials, or semi-manufactures from one manufacturing firm to another).

The value of stocks and working capital of manufacturing industry in 1938 has been estimated by A. Maizels (*Economica* May 1941) at £1,150 million which makes six months value of the output of finished products. It is likely that this figure is not substantially different for the sector of finished products with which are here concerned, i.e. exports and non-food home consumption (These items constitute 50 per cent. of the total manfactured output of finished products in the above sense).

[4] In ' normal ' times inventories fall usually less than proportionately to output, because the fall in working capital is frequently accompanied by rise in stocks (unsold goods). But such is not the case in a ' scarcity economy ' in war time.

3. As may be seen from Table I, the increase in personal savings was of great importance in financing the war. We shall now examine it in more detail. In Table II it is shown how personal savings have arisen out of personal income, direct tax payments and personal consumption.

TABLE II. *Personal Incomes, Tax Payments, Consumption and Savings*

	£ million			
	1938	1940	1941	1942
Personal incomes*	4606	5566	6158	6826
Less Direct tax payments by persons*	330	477	645	755
Personal incomes net of tax	4276	5089	5513	6071
Less Personal consumption	4035	4282	4509	4800
Personal savings before paying death duties etc.	241	807	1004	1271

* After deduction of contributions to social insurance.

In Table III we calculate what we call the war-time 'saving effort.' We first calculate personal incomes and personal consumption at 1938 prices, using for deflation the price indices which may be obtained from the White Paper. Next there is given in the Table the reduction in real incomes as compared with 1938. Further, according to the enquiries made about pre-war saving[1] a change in real personal income net of tax by £100 caused a change in real consumption of £90 to £95. On this basis we calculate the 'normal' expected reduction in real consumption as compared with 1938 by taking 92 per cent. of the corresponding reductions in real income. With this we compare the actual reduction in real consumption as compared with 1938. The difference we call the war-time 'saving effort,' and we express it also as a percentage of current personal income (net of tax) and of current consumption. The latter percentage indicates by how much expenditure would have increased without this 'effort,' and thus by how much prices would have increased with the same supply of goods and services. It must be stressed, however, that not all the increase in personal savings may be considered 'voluntary', because comprehensive rationing played an important part here, especially in the increase in the war-time 'saving effort' from 1940 to 1941 and 1942.

TABLE III. *War-Time 'Saving Effort'*

		1938	*1940*	*1941*	*1942*
Index of retail prices of goods and services		100	121	136	145
Real personal incomes (net of tax)	£m	4,276	4,210	4,050	4,190
Real personal consumption	£m	4,035	3,540	3,310	3,310
The reduction of real incomes net of tax compared with 1938	£m	0	66	226	86
'Normal' expected reduction in real consumption as compared with 1938	£m	0	60	210	80
Actual reduction in real consumption as compared with 1938	£m	0	495	725	725
War time 'saving effort' in 1938 prices	£m	0	435	515	645
War time 'saving effort' as % of current income, net of tax		0	10.3	12.7	15.4
War time 'saving effort' as a % of current consumption...		0	12.3	15.6	19.5

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[1] E. A. Radice, *Savings in Great Britain*.

4. It is interesting to compare the rise in personal savings with the result of the saving campaign as shown by the amount of so-called small savings. This comparison is made in Table IV. By small savings are understood here Saving Bank deposits, National Saving Certificates and 3% Defence Bonds. To this should be added the rise in coin and note holdings in the hands of ' small men ' which most probably constituted a substantial part of the increase in the note circulation. As there is no way of estimating what part precisely it was, we show in the Table both ' small savings ' proper and small savings plus the increase in the coin and note circulation. The complete figure of ' small savings ' is somewhere in between. For both these two variants we calculate the difference as compared with 1938 level, and compare the result with a corresponding difference in personal savings, net of death duties etc.

TABLE IV

' Small Savings ' and Personal Savings

			1938	*1940*	*1941*	*1942*
1.	' Small savings '	£m	4	467	601	599
1a	Rise over 1938 level	£m	0	463	597	595
2	' Small savings'' plus increase in cash circulation*	£m	—3	541	744	767
2a	Rise over 1938 level	£m	0	544	747	770
3	Personal savings net of death duties, etc.	£m	151	722	910	1,171
3a	Rise over 1938 level	£m	0	571	759	1,020
4	Percentage (1a) : (3a)			81	79	58
5	Percentage (2a) : (3a)			95	98	75

*The increase in cash circulation is calculated as the difference of coin and note circulation outside banks in January of the next year and January of the year considered (Source : Statistical Summary of the Bank of England).

This comparison is best shown by the ratio of the increase in small savings over the 1938 level to the corresponding increase in personal savings (here again two variants are given, one based on small savings proper and the second on small savings plus the increase in cash circulation). For 1940 and 1941 percentages obtained for both variants are very high, which is explained by the fact that small savings in those years probably reflected only to a moderate degree the increase in personal savings of small savers, and to a great extent were due to transfers from other assets, to redirection of the pre-war stream of savings into the channel of National Savings, and to the acquisition of the National Saving assets by large savers. In 1942 we notice a considerable fall in the ratio of the increase of ' small savings ' as compared with 1938 to the corresponding increase in personal savings. This is not because of a decline in importance of genuine small savings, but of the fact that transfers and savings of large savers could not find their way into National Savings assets because in many cases these savers had reached the statutory limit of the respective holdings. This topic has been discussed in more detail in another article in this BULLETIN.[1]

M. KALECKI.

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[1] BULLETIN, Vol. 4, No. 15.

‘HUMAN NEEDS’ COST OF LIVING FOR A SINGLE PERSON

The cost of housekeeping for a person living alone differs in several basic points from the cost of housekeeping for a family. This is particularly the case as regards people with small incomes. The poor family can economize in housing accommodation, fuel, and light, to an extent which is not generally possible for a single person ; moreover, a family can purchase an adequate diet relatively more cheaply than a single person, because of the economies arising from buying and cooking large quantities. For all these reasons, the cost of living for a single person cannot be represented satisfactorily as a proportionate fraction of the cost of living of a large family, and must be calculated specifically. This has been done for the purpose of this article, which deals with expenditure on food, clothing, fuel, light, household, and personal items. Rent has been left out, and also fares to work, as both these items vary too much for inclusion as definite figures in an outline of minimum expenditure.

In general, the single person with a household of her own, whether of working age or an old age pensioner, will be a woman. Yet there is no reason for believing that the minimum expenditure would be different for a man, except in the case of food, where it would be somewhat higher. Allowance for this has been made in Table II and the bottom rows of Table III.[1] Thus, if our minimum total outlay is to apply to a single man instead of a single woman, the additional outlay per week on food given in Table II for the three several groups would have to be added to the total outlay.

In compiling a low-cost diet for a single woman of working age it must obviously be assumed that she is either actually earning her living, or else temporarily prevented from doing so by illness or unemployment. If she is working, she will have little time for shopping, while if she is out of work because of illness, she will have little strength for it. The genuinely unemployed will have ample leisure while unemployment lasts, and thus be in a position to look out for ‘ bargains ’ which normally she has to forgo. Hence she may be able to obtain her diet at an exceptionally low cost, as compared with other single women, provided that she has the necessary facilities for cooking and storage. Whether or not such facilities are available is, indeed, a fundamental question when considering the cost of a minimum diet in any particular case.

Diet A as set out in Table I presupposes that a woman has satisfactory cooking arrangements for the preparation of all her meals. Even in these circumstances it will be more costly to provide a nutritious and appetizing diet than if the meals were prepared for a large family. First, there are the special difficulties of shopping. Secondly, a number of cheap dishes that can conveniently be cooked for a large family become extravagant if prepared for only one person, because of their demand on time and fuel. Thirdly, any woman who has to be satisfied with a low-cost diet is likely to have only restricted storage accommodation which, again, tends to restrict her dietary as regards variety,

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[1] Usually, the scales of nutritional requirements are taken to be the same for a male or female old age pensioner. The slightly higher food value of our diet for a male old age pensioner has been adopted in order not to meet a physiological but a dietetic need, as a small quantity of bacon is a useful flavouring ingredient that may help to compensate for deficient skill in cooking.

TABLE I

Weekly Minimum Diet for a Single Woman

	Diet A All Meals at Home		Changes in Quantity and Outlay Diet B 6 Meals Out		Diet C Old Age Pensioner	
	Quantity Units[1]	Outlay Pence	Quantity Units[1]	Outlay Pence	Quantity Units[1]	Outlay Pence
1 Meat[2]	19	12	—7	-	-	-
2 Corned Meat	2	2	-	-	-	-
3 Bacon	4	4½	-	-	—4	—4½
4 Fish, tinned	-	5	-	-	-	-
5 Eggs, shell	1	2	-	-	-	-
6 *ditto*, dried	3	5¼	-	-	—3	—5¼
7 Cheese...	3	2½	-	-	-	
8 Milk	3	13½	-	-	+½	+2¼
9 *ditto*, dried[3] ...	1	2¼	—1	—2¼	—1	—2¼
10 Butter	2	2¾	-	-	-	-
11 Margarine	4	2¼	-	-	-	-
12 Lard	2	1¼	-	-	-	-
13 Sugar	8	1½	-	-	-	-
14 Jam	4	3	-	-	-	-
15 Syrup	2	1	-	-	-	-
16 Prunes	2	1¼	-	-	-	-
17 Tea	2	4	-	-	-	-
18 Legumes, dried ...	4	1¼	—4	—1¼	-	-
19 Rice, etc.	4	1½	—4	—1½	-	-
20 Oatmeal	16	3½	-	-	-	-
21 Flour[4]	8	1¾	—6	—1¼	—4	— ¾
22 Bread	64	9	-	-	-	-
23 Potatoes	112	7	—96	—6	—56	—3½
24 Other Vegetables ...	48	9	—32	—6	-	-
25 Condiments	-	1	-	-	-	-
Total		100		—18¼		—14
Cost of Diet per Week		**8/4**		**6/9¾**		**7/2**

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[1] The Unit is, for eggs, number ; for milk, pint ; for all other items, ounce.

[2] Cheap stewing meat, if all meals prepared at home ; chops or other frying meat, if 6 meals taken out.

[3] Converted into liquid milk.

[4] Self-raising.

TABLE II

Diets for Single Women Adapted for Single Men

	Changes in Quantity and Outlay Diet A		Diet B		Diet C	
	Quantity Unit[1]	Outlay Pence	Quantity Unit[1]	Outlay Pence	Quantity Unit[1]	Outlay Pence
Syrup	— 2	—1	— 2	— 1	-	-
Tinned Fish	+ 2[2]	+3	+ 2[2]	+ 3	-	-
Sausage, pork	+16	+13	+16	+13	-	-
Eggs, dried	+ 2	+3½	-	-	-	-
Bread	+48	+6¾	+32	+ 4½	-	-
Bacon	-	-	-	-	+4	+4½
Outlay per Week ...		+25¼		+19½		+4½

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[1] The Unit is, for eggs, number ; for all other items, ounce.

[2] Approximately.

TABLE III

Nutritional Intake and Cost per Day

		Calories	Total Protein	Animal Protein	Cost	
			grammes	grammes	s.	d.
Single Woman	Diet A	2650	81	38	1	2¼
	Diet B	2050	61	30		11¾
	Diet C	2300	69	31	1	0¼
Single Man	Diet A	3300	104	45	1	6
	Diet B	2450	76	35	1	2½
	Diet C	2350	71	33	1	1

TABLE IV

Utility Clothing for a Single Woman per Year

	Coupons	Outlay
One-fifth Coat (67/6) ...	3.6	13/6
One-sixth Raincoat (36/-) ...	2.4	6/-
1 Jumper	5.0	9/6
1 Skirt	6.0	12/6
1 pair Shoes	5.0	20/-
2 pair Stockings (1/8) ...	4.0	3/4
2 *ditto* (2/-)	4.0	4/-
2 Vests (2/-)	6.0	4/-
2 Knickers (2/3)	6.0	4/6
1 Bodice	3.0	5/3
1 Nightdress	6.0	6/3
Sundries	4.0	4/-
Shoe Repairs...	-	11/2
Total	55.0	104/-

TABLE V

Weekly Expenditure on 'Household' and 'Sundries'

Household		Sundries	
Soap	6d.[1]	Newspapers	9d.
Cleaning Materials		Wireless Licence	2½d.
Laundry	6d.	Personal Expenses[3]	1/6½[4]
Replacements	6d.[2]		
Total	1/6	Total	2/6

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[1] 4d., if 6 meals taken away from home.

[2] 5d., if 6 meals taken away from home.

[3] Including mending materials, toilet requisites, chemist, expenditure on cups of tea at works, stamps, etc. Fares to work are excluded.

[4] 1/0½ for an old age pensioner.

TABLE VI

Minimum Weekly Expenditure of Single Woman, excluding Rent and Fares

	Woman of Working Age			Old Age Pensioner	
	All Meals at Home		6 Meals Out		
	Institute	Beveridge Rep.	Institute	Institute	Beveridge Rep.
	1943	1938	1943	1943	1938
Food	8/4	6/-	12/3¾	7/2	5/6
Clothing	2/-	1/6	2/-	2/-	1/4
Fuel and Light	2/-	2/6	1/6	2/9	3/-
Household	1/6		1/3	1/6	
Sundries	2/6	1/6	2/6	2/-	1/6
Total	16/4	11/6	19/6¾	15/5	11/4

TABLE VII

Indices April—May, 1943

	Institute (Bev. Rep=100)		Min. of Lab. (Sept. 1/38=100)
	All Meals at Home	Old Age Pensioner	
Food	139	130	118
Clothing	133	150	169
Fuel and Light	140	142	136
Household			153
Sundries	167	133	
Total (weighted)	142	136	132[1]

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[1] The weights applied to the several items are those used by the Ministry of Labour, adjusted so as to allow for differences in the rise in prices.

and to raise its cost owing to the smallness of her purchases. Thus, it will not as a rule be economical for a single person to buy separately plain flour and baking powder ; instead, she will use self-raising flour. Further, it will scarcely be practicable for her to obtain half of her margarine of the cheap ' standard ' and only half of it of the ' special ' type, and since she has to eat at least part of it with her bread, we have assumed that she buys only the ' special ' brand. In general, to prevent her diet from being too unattractive, she will have to take up all rationed foods, including butter and as many foods as she is allowed on points. Diet A in Table I thus includes all the rations that were available for any week in May 1943. The weekly cost of the diet was 8s. 4d.,[1] and it supplies per day about 2650 calories and 81 grammes of protein, of which 38 grammes are of animal origin (Table III).

Most single women of working age are, however, living in only one room, and many of them have nothing but a gas ring on which to cook their meals. In that case they will probably purchase six main meals at the works' canteen or a similar place, and in Table I ' Diet A ' is modified under ' Diet B ' so as to supply the supplementary nutriment to these meals. From Table III it will be seen that the difference in nutritional value between Diet A and Diet B, is, per day, 600 calories and 20 grammes of protein, of which about 40 per cent. represent animal protein. Per week, Diet B shows a deficiency of about 4200 calories and 140 grammes of protein, as compared with Diet A ; hence, each of the six meals would on average have to provide 700 calories, and contain 23 grammes of protein, two fifths of it of animal origin. This is perhaps rather a low estimate of the nutritional contents of a main meal, and a well planned canteen meal may supply somewhat more. On the other hand, allowance must be made for the fact that the nutritional value of a cooked meal is often very difficult to estimate, and that, therefore, a woman may buy habitually an inadequate lunch or dinner.

The deductions made in Table I from Diet A in order to obtain Diet B take into account the limited facilities for cooking mentioned above. Only a woman who derives exceptional pleasure from cooking will prepare complicated meals on a gas ring in a bed-sitting room ; as a rule, preference will be given to anything that is done quickly. Thus, instead of stewing meat, chops will be bought or some other kind of frying

[1] As compared with about 7s. 6d., the weekly cost of a minimum diet for an adult woman in a family of five persons (*cf.* BULLETIN Vol. 5, No. 7).

meat, giving less nutritional value for the weekly outlay of one shilling. There will be no use for such items as rice and dried legumes, and dried milk will also be avoided because it requires special preparation, which takes time and for which, moreover, the necessary implements may be lacking.

The weekly cost of Diet B would be 6s. 9¾d., plus the price of six additional meals. If we assume these meals to be bought at a British Restaurant at 11 pence a meal, they would cost 5s. 6d. per week, so that a woman would then have to spend 12s. 4d. a week on her food, if she is to be properly nourished.

An old age pensioner needs less nutriment than a woman of working age, and if her housework is light, the 2,300 calories supplied by Diet C could possibly be reduced slightly further. A small reduction of the calorific intake would, however, most likely be effected through a reduction in the consumption of bread, in which case the bread would be bought in single pound loaves instead of loaves weighing two pounds. The price of a pound of bread then rises from 2¼ pence to 2¾ pence. Consequently, only 3¼ pounds of bread would be obtained for the price of 4 pounds, and this reduction in the calorific content would leave the cost of the diet unchanged.

Since the preparation of such foods as dried eggs and dried milk is somewhat cumbersome and tiring, they appear to have little appeal to old age pensioners, who in any case do not easily take to innovations. Indeed, an old person will often rather underfeed herself than buy these foods. On the other hand, she likes the milk with her tea unboiled, and will buy her half-pint daily if she can get it. As her ' nice cup of tea ' is often the only luxury of the old age pensioner it would be unreasonable not to allow for that habit even in the schedule of a ' minimum ' diet. Foods that are in short supply and thus difficult to obtain, are out of reach of an old age pensioner, who obviously cannot be expected to stand in queues; they are therefore excluded from our diet. The total weekly cost of Diet C for an old age pensioner would be 7s. 2d., that is, it would amount to 86 per cent. of that of Diet A. This approximately corresponds to the difference in the calorific value of the two diets and, nearly, to the difference in total protein, though as regards animal protein, Diet C only supplies about 82 per cent. of the amount contained in Diet A.

Table IV sets out the minimum expenditure on utility clothing per year, on the assumption that an adult is allowed about 55 coupons. The prices given in Table IV are the lowest at which clothing of a hard wearing quality could be bought. Hence a person would have to spend on clothing a minimum of 2s. a week. It cannot be assumed that an old age pensioner would need less, for although she might require fewer replacements than a woman of working age she will want a larger amount of clothing for warmth.

Table V gives in some detail the outlay on household requirements and on sundries. A woman with a household of her own will have a somewhat larger outlay on cleaning materials and replacements than a woman living in only one room, especially if the latter does not prepare all her meals at home. In that case, we have allowed a deduction of 3 pence per week, so that the total outlay on ' household ' items for a woman who has six meals a week away from home is taken as 1s. 3d.

instead of 1s. 6d. The total outlay on personal expenditure we have assessed at half-a-crown for a woman of working age, and two shillings for an old age pensioner ; but in the latter case, sixpence might be added for the purchase of small luxuries, such as sweets or tobacco.

In Table VI, our data of minimum expenditure for a single woman are compared with those given in the Beveridge Report, which were estimated in relation to prices in 1938. The data in Table VI, and the corresponding indices in Table VII, show that for food, and fuel and light, our figures are higher than those of the Beveridge Report corrected for the changes in the Ministry of Labour cost of living index from September 1, 1938, to April 1, 1943. For old age pensioners the relative rise in the cost of food found by us is about five points less than that which we calculated for a family living on a minimum diet, *viz.*, 35 per cent., since the outbreak of the war.[1] Sir William Beveridge, however, allows for the food expenditure of an old age pensioner approximately 0.9 of that of a woman of working age, although her physiological requirements are generally only taken to amount to about 0.8 of a woman in the prime of her life. If his figures are modified so as to eliminate this discrepancy, the cost of a minimum diet for a single woman, whether of working age or an old age pensioner, appears to have risen by about 40 per cent. during the war. The slightly higher figures of our indices for fuel, light, and household, as compared with the Ministry of Labour indices for fuel and light, are probably partly due to the inclusion of household expenditure in Sir William Beveridge's data, and, further, to our assumption that a woman who goes out to work will rely for her cooking and heating mainly on gas and electricity, which are expensive sources of heat, especially if obtained by means of a slot meter. For clothing, our index is below that of the Ministry of Labour, which latter makes only partial allowance for purchases of utility clothing and which, moreover, assumes that the quantities purchased have remained unchanged. Actually, however, rationing of clothing has enforced a reduction that goes substantially beyond what would be considered a ' human needs ' minimum in peace time.

Taking together the expenditure on all these items we find that, while the Ministry of Labour index shows an increase of about 32 per cent. since September 1938, our own indices, based on the data given by Sir William Beveridge for 1938, indicate that the actual cost of living has risen by at least 36 per cent. for an old age pensioner, and by 42 per cent. for a single woman of working age with a very low income.

T. SCHULZ.

CONSUMPTION OF MILK

1. According to an official estimate, liquid milk consumption in England and Wales in the year ending March 31, 1943 was 1,000 million gallons,[2] an increase of nearly 33 per cent. on the pre-war figure of 760 million gallons. Of the few goods whose consumption is known to have increased in war-time, milk shows the largest percentage rise.

Working-class consumption must have increased to a greater extent than total sales because under present restrictions the high income groups consume actually less than they did before the war. From a recent Budget Inquiry[1] it appears that in 1938-39 the average consumption of milk per person per week in middle-class households was at least one pint above the present national average. Thus, consumption by the working-class and other lower income groups rose not only to the full extent of the increase in total sales of over 240 million gallons, but also to the extent to which middle-class consumption was cut down, which may be estimated at between 20—40 million gallons per year; both figures together give a percentage increase of 40 to 45 per cent. on the pre-war consumption of the lower income groups.[2]

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[1] *Cf.* BULLETIN Vol. 5, No. 7.

[2] ' Daily Telegraph ' May 21st, 1943, ' Farmers' Weekly ' May 29th, 1943.

In the following an attempt is made to analyse the factors leading up to the improvement in the intake of this valuable food, an improvement which would appear to be one of the most important of the few credit items on the balance sheet of economic and social war-time changes.

2. Under the National Milk Scheme, introduced in July 1940, more than 3 million expectant or nursing mothers and children under five obtain one pint per day free or at less than half the retail price,[3] thus about 140 million gallons per year are being handled under the scheme. These supplies do not, however, represent a net addition to total consumption; to some extent they only replace purchases made previously at full prices. When a scheme, similar to the present one, was introduced in 1936 in the Rhondda Valley and in some other depressed areas, it was found that of the cheap milk supplied two-thirds replaced previous full-price purchases and only one third was a net increase in consumption.[4] With higher incomes, the net addition may, of course, now be larger. If all cheap or free supplies were a net addition to previous consumption, the scheme would account for 120—130 million gallons of the increase of 260—280 million gallons in the consumption of the lower income groups, or for about half the increase. This is the upper limit for the actual effect it had on consumption. If on the other hand, the scheme had no greater success in raising consumption than the Rhondda experiment, it would account for only one sixth of the increase in consumption by the lower income groups. This may be accepted as the lower limit of the effect it actually had.

On the other hand, the Milk in Schools Scheme is largely additive to household consumption except in very poor families. The percentage of children coming under this scheme rose from 56 per cent. before the war to nearly 80 per cent. early in 1942, an increase in requirements of 10—15 million gallons per year.

Higher sales of fresh milk may be due to a reduced supply of condensed and dry milk which are close substitutes for it. However, in the winter 1942—43 fairly large quantities of dried and condensed milk were released for distribution, representing about 15 per cent. of fresh milk consumption before the war.[5] This rate of release is probably not much below the pre-war level.

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[1] P. Massey, 'Expenditure of 1,360 British middle-class Families,' J.R.S.S. 1942.

[2] The estimate of the cut in middle-class consumption was based on the assumption of a reduction of one pint per person per week for 10 per cent. of the population. Pre-war consumption by the lower income groups was estimated at 85 per cent. of the total, thus allowing for their lower consumption per head.

[3] J. Backman, 'British Food Subsidies,' 'Dunn's Review' March 1943.

[4] Calculated from 'Milk Marketing Scheme,' (published by the Milk Marketing Board), page 36.

[5] It is possible that the larger share of dried milk in present supplies may act as a deterrent for consumption.

Between the calendar year 1941 and the twelve months April 1942 to March 1943 there was a rise in liquid milk consumption of 60 million gallons, although the National Milk Scheme was already in operation in 1941 and supplies of dried and condensed milk have actually increased since that year. Again, working-class consumption rose more, because it was just at the end of 1941 that the restrictions for larger consumers were tightened. The rise in consumption after 1941 would strengthen our assertion that factors other than the National Scheme or restricted supplies of close substitutes were operative in raising the demand for fresh milk.

3. From the results of family budget enquiries it can be seen that there is a strong tendency for milk consumption to rise with rising income. If it can be assumed, as it is usually done, that a family rising from one income level to the next higher one adopts, after a time lag, the standard of expenditure of that income level, then the rise in real income can be accepted as another contributory cause of the war-time increase in liquid milk consumption. 'A very large number of people in this country who before the war were not in a financial position to buy milk are now taking their supply.'[1]

The following Table gives, for the United Kingdom, the course of liquid milk sales (including supplies distributed under the National Scheme), the real wage bill and the retail price of milk (if bought at full price) both absolute and relative to the retail food index [2] For comparison, consumption by the Forces has been excluded from the consumption index since it does not depend on their income,[3] and similarly payments to the Forces were excluded from the wage bill index, but not dependents' allowances ; wages were taken net of direct tax payments.[4] In connection with the wage bill, it should be kept in mind that the total may conceal significant changes in the distribution of the various income classes, changes which may affect demand even if the total wage bill remains constant.

U.K. Liquid Milk Consumption, Real Wage Bill and Retail Milk Price

Total liquid consumption (million gallons)	*1938* 860	*1939* 863	*1940* 937	*1941* 1065	*1942* 1125-1140 *
Civilian liquid consumption (1938=100)	100	100.3	104.7	115.1	121.7-123.3*
Real wage bill (1938=100)	100	—	103.5	105	111
Relative retail price (1938=100)	100	98.5	93.6	109.0	113.1
Retail price (pence per quart)	6¾	6¾	7½	8¾	8¾

* Apr. 1942—Mar. 1943.

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[1] Mr. Hudson, Hansard, December 3rd, 1942, col. 1296.

[2] Consumption figures for 1939—41 from a statement by Mr. Mabane, Hansard, July 14, 1942, col. 1093 ; for 1938 and 1943 estimated on the basis of Mr. Hudson's statements giving consumption in England and Wales as 757 million gallons in 1938 and as 760 million gallons in 1939 (Hansard, Jan. 20, 1942, col. 211), as 940 million gallons in 1941 (*Times*, July 8, 1942), and as 1000 million gallons for the 12 months April 1942 to March 1943 (' Farmers' Weekly,' May 28, 1943). Wage bill and index used for deflation from White Paper, Cmd. 6438.

[3] By subtracting 4% from the total in 1940, and 7% in 1941 and 1942.

[4] *Cf.* BULLETIN Vol. 5, No. 7, pages 106—107.

4. The discrepancy after 1940 between the slow rise in the real wage bill and the jump in consumption is too large to be explained by the effect of the National Scheme. There was a considerable cut in the meat ration in the beginning of 1941, and the shortage of fish became more stringent. It seems that this change induced working-class families which under the larger ration could still get as much as, or even more meat than they used to have before the war, to switch over to milk in order to cover their requirements of animal protein ; in a similar way as the reduction in sugar and fat supplies led to an increased demand for other cheap sources of energy, such as potatoes, bread and flour.

Thus the improvement in milk consumption appears to be mainly due to a combination of three factors: discriminate selling at differential prices under the National Scheme, the reduction in meat supplies and the rise in real income. The latter would also partly explain the fact that dried skimmed milk is not very popular and that it is selling rather slowly. Again results obtained from family budget enquiries would lead us to expect that with rising income less condensed or dried milk and more fresh milk would be used.

5. The effects of the war-time rise in liquid milk consumption on agriculture are obvious. While before the war about 30 per cent. of total supplies could only be sold as ' surplus ' at low prices for manufacturing purposes, the percentage has now been reduced to 9 per cent. This factor alone would, on the basis of the pre-war relation between liquid and manufactured milk prices, increase farmers' takings by 15 per cent., quite apart from the effects of higher prices and slightly increased total sales.

But even if full employment is maintained after the war, it is doubtful whether demand for milk will remain at its present level. This will only be the case if the increase in consumption, which will occur when the higher income groups are again able to consume freely, is large enough to offset the fall in demand by the lower income groups when their meat consumption will return to the customary level.[1] However, the nutritional improvement brought about by the higher and more uniform intake of fresh milk will only be maintained if further price adjustments are then made to enable poorer families to return to their peace-time level of meat consumption and, at the same time, to maintain their war-time standard of milk consumption. J. GOLDMANN.

STEEL PRICES

The fixing of steel prices by the Iron and Steel Control has been one of the most interesting, but one of the most elusive, problems of war-time economic policy. Each year, since the outbreak of war, the Auditor General reported that he had been unable to find out on what basis these prices were determined, and each year the Public Accounts Committee attempted to press the investigation a stage further. In his Report on the Vote of Credit Appropriation Account 1941, published in April of this year, the Auditor General gives the fullest account of the matter so far available. There are, however, still a number of obscurities and it would be most useful if these could in some way be made clear.

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[1] Though present conditions may leave an after-effect in creating a ' milk habit.'

1. *The Movement of Prices.* At the outbreak of war the newly formed Control fixed maximum prices for a wide range of iron and steel products at the existing level, these prices having previously been regulated by the Iron and Steel Federation. During the first 14 months of the war a number of substantial increases (of the order of 5—10 per cent. on each occasion) in maximum prices were made, partly because of increased costs, and partly to cover a levy on all producers to finance the various Funds which will be described below. The last noticeable increase was made in November 1940, but since that date it has been the policy of the Government to stabilise steel prices. The movements of prices up to November 1940 and the success of the subsequent stabilisation policy are shown by the Board of Trade Wholesale Price Index for Iron and Steel Products (only the months in which changes occurred are tabulated).

Board of Trade Index of Iron and Steel Prices

(1936=100)

1939		*1940*			*1941*	*1942*	*1943*
Sept.	Nov.	Feb.	July	Nov.	Monthly Average	Monthly Average	Average for first 4 months
128.1	141.2	150.5	163.8	179.0	181.1	182.5	182.7

2. *Finance Funds.* Before the war importation of iron and steel products was managed by the Iron and Steel Corporation, a subsidiary of the Federation. The finance of this fund was raised by a levy on producers. During the war the resources of this *Central Fund* were greatly increased in order to buy imports at the market price abroad and to re-sell the products at the appropriate Control price to the British user. It was stated in the trade journals that a substantial part of the successive price increases during the first 14 months of the war were due to increases in the levy to cover increased import prices. In 1940, however, £59.6 millions were transferred to the Fund from the Vote of Credit of which £6.5 millions were repaid. In 1941 £9.8 millions only were advanced while £41 millions were repaid from the proceeds of sales of iron and steel and the levies. It is clear that both imports and stock accumulation in the latter half of 1940[1] must have been on a vast scale. Whether the Government has subsidised the prices of imported steel is not known, for against the debit of £22 millions standing to the name of the Central Fund at the end of 1941 there may have been substantial unsold stocks of steel. Meanwhile, in November 1940, the administration of the Central Fund was transferred to the Ministry of Supply.

In addition to this Central Fund there was at the outbreak of war a *Special Fund*, financed by a levy on producers (and included in the Control price) whose operations have been mainly concerned with the development of home production. It was proposed that this Special Fund should be transferred to the Ministry's Central Fund as from 1st January, 1942, but the Auditor General reported that the matter was left over pending discussions with the Treasury.

Finally, there is a *Prices Fund*, established to maintain essential firms in production, which receives allocation from the Central Fund.

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[1] The value of imports of iron and steel manufacture for the four quarters of 1940 were respectively £m. 5.9, £m. 6.7, £m. 13.6, £m. 19.2.

The Prices Fund is the channel through which the stabilisation policy has been carried out since November 1940.

3. *Price Formation.* It is not possible to state precisely how the prices for producers are determined but the position since 1940 seems to be somewhat as follows. In the first place, for any particular heavy steel product there is a control price p_c. This has been constant since 1940 and is what the consumer pays. In addition there is a levy per ton l, so that the producer's net price is $p_n = p_c - l$; it is this net price which the producer takes into account when estimating his proceeds.[1] At this price p_n, which has remained constant since November 1940 (assuming that the levies have not been changed) some producers will reach or surpass their E.P.T. ' standard ' profit, while others will not; some may even make losses. ' Primary grants are made in the form of a price increase, fixed by the advisory accountant on the average results of the heavy steel trades to firms whose profits from heavy products are below their standard.' (Report on Vote of Credit Appropriation Account, 1941, par. 49). The basis of this price fixing was explained to the 1942 Public Accounts Committee by the accountant to the Iron and Steel Control. (Minutes of Evidence taken before the Committee of Public Accounts, 1942, answer to question 8260).

> 'These costs, for example, show the figures for basic pig-iron plates, sections, etc., covering 12 firms and representing over 90 per cent. of the output. The whole of the output for that month is costed, showing the various materials, labour costs and so on. That is done for each of the products in the case of some 20 or 30 products here in this book. There is a page for each maker. The second book which we have got here merely averages them together for the whole of the industry, and shows the comparison month by month going back to the previous month, and you can see the course the costs are taking, the margin of profit relation, and you can follow it down to the detail for each individual firm and compare the efficiencies and different costs of the firms; but as one contract is so essentially similiar to another for plates there is no point in costing one contract and then another contract. The effective way of costing is to take the whole of the output for the whole of the month and take the whole of the costs.'

The price for producers p_a is presumably arrived at by adding to the average cost of production of the whole industry a 'reasonable' margin for profit. This profit margin must be somewhat arbitrary: it cannot be deduced from the cost investigation, for the average profit shown by the investigation depends upon the level of control prices (net of levies). Now as costs rise, the price p_a will exceed more and more the control price (net of levies) p_n. Producers who already reached their E.P.T. standard at the control price (net of levies) p_n get no price increase, but those who have not already reached their E.P.T. standard may claim the higher price p_a, unless this would bring their profits above standards, in which case they get only the deficiency of their profits. This system is thus financially slightly more favourable to the Government in the long run than would be an unqualified uniform price p_a, in that 20% of profits above ' standard ' are reserved as a post-war credit for the firms concerned.

That this is a correct interpretation of the method is suggested by the answer to question 8280 in the evidence taken before the Public Accounts Committee, 1942.

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[1] It is assumed that the levy is raised per ton uniformly on all producers.

> 'Then we are agreed that under this system it is impossible to adjust the profits of any individual firm to a reasonable level ?—That, I think. is one of the main merits of the system, that it has a uniform price with a fair profit over-all, but it does accept the position that through working at a uniform price some firms will be below a reasonable profit level and some firms will be above it. This is a fundamental principal inherent in the system.'

It is not clear where the merit of this system lies, and the Ministry itself rejected this very system in another case, as a Ministry of Supply official explained, when describing the complex arrangement of rebates paid by wire-makers :—

> '. . . . a uniform price would have meant that some firms would have been making small profits and others would have been making large profits. It seemed to the Ministry, therefore, that the best way of overcoming this difficulty was to proceed by a system of rebates' (Minutes of Evidence taken before the Committee of Public Account, 1942 ; answer to question S299).

The uniform price based on average cost of the whole industry *plus* 'reasonable' profit means, as with any uniform price, that the more efficient part of the industry is likely to reach its E.P.T. standard easily, and has only the doubtful incentive of the 20 per cent. post-war credit as a stimulus to efficiency. Even this does not apply to those firms, initially below 'standard' whose profits are brought up to this level by the price increase. There is, however, a normal profit incentive for the less efficient part of the trade.[1]

4. *The policy in operation.* If we suppose that the control prices at the level of November 1940 were more or less the same as the average price, based on costs of production *plus* the 'reasonable' profit, it follows that any subsequent rise in costs has been neutralized by an equivalent subsidy from the Government,[2] unless, indeed, the Control Fund began with a large pool raised from previous levies. Certainly, there has been little reduction in profit margins. The advisory accountant received '. . . no specific instructions to aim at a reduction of the percentage of profit such as have been applied by Government contracting departments . . . these departments accepted, in pre-war days, 10 per cent. on capital employed as a general rule for fixing a profit rate on normal contracts, but, with the progress of the war, the tendency was to bring the rate down towards 7½ per cent. per annum on the capital employed' (Report on Vote of Credit Appropriation Account 1941, para. 43).

The Auditor General provides information about the actual results of the 14 companies in the heavy sections of the industry examined by the advisory accountant. The results varied '. . . . from a loss of 6.8

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[1] Instead of claiming the price increase, firms which make losses may claim instead a grant which brings profits from all sections of its production up to 25% of their standard. This arrangement, which would only appeal to very high cost producers, also provides no incentive to efficiency. An examination of the data provided by the Auditor General suggests, however, that this system was not used by any of the 14 firms (which presumably cover more than the 90% of output attributed to the 12 firms mentioned above). The Auditor General states that it was not used either by any firm manufacturing the lighter products only.

[2] Total payments from the Prices Fund to 31 March 1942, amounted to £2.8 millions. Part of this may, however, be covered by receipts from levies. This is a most complicated matter since levies are paid into the Central Fund which covers imports as well as allocations to the Prices Fund.

per cent. to a profit of 13.5 per cent., with eight firms below 6 per cent. In three cases no grant was made. After crediting the grants from the Fund the 14 firms showed profits within a range of 3.7 per cent. to 13.5 per cent., with only three below 6 per cent.' (Report para. 49).

5. *Conclusion.* The Auditor General makes certain remarks about the profits of both the heavy and the lighter sections of the trade. He concludes that, subject to certain qualifications, 'the prices for the heavy products would have been accepted by contracting departments' but points out that ' . . . the industry as a whole appears to have obtained a higher rate of profit than that normally allowed under the Ministry's costed contracts . . . it is satisfactory to note that, where sections of the iron and steel industry are making abnormal profits, steps are taken to secure that the price reductions have retrospective effect ' (Report, para. 47). But the retrospective collection of excessive profits, though satisfactory, perhaps, from a purely financial point of view, is not enough, as the Treasury has pointed out with regard to the Excess Profits Tax itself. The incentive problem remains. So far as the bulk of the heavy steel trades are concerned (the 14 companies mentioned cover more than 90 per cent. of the output ; see footnote [1], page 154) the Ministry has detailed monthly costs of production of each firm. It should not be difficult to devise a differential price policy which would provide an incentive to efficiency for all firms. One such solution would be to set each of the main firms (the number is small) a fixed price equal to average costs of production of that firm in the previous period *plus* a profit margin which would enable firms just to earn their standard profit if they used their capacity fully.[1] If costs are showing a definite trend upwards, instead of the average of a previous period, a somewhat higher figure might be taken. There would thus be a full profit incentive to all firms to increase their efficiency. A similar system might be applied to other sections of the trade where cost data are not so thorough as in the heavy section, but where sufficient information is available to provide a set of fixed prices for groups of firms.

G. D. N. WORSWICK.

DIARY.

LABOUR TURN-OVER IN THE U.S.A.

In the last year labour turnover in U.S. manufacturing industries has risen considerably. The following table gives the 'separation rate,' i.e. the number of persons, per 100 employees, who ceased to be employed at a particular firm during one month ; this rate can be split up according to the reason for ' separation ' (quit, discharge, etc.).

	Total Separation	*Quit*	*Discharge*	*Lay-off*	*Miscellaneous*
			Rate per Month		
1929 (Jan.—July)	6.30	3.43	0.76	2.11	—*
1939 Av.	3.14	0.79	0.13	2.22	—*
1941 Av.	3.89	1.97	0.25	1.32	0.35
1942 Av.	6.47	3.76	0.39	1.07	1.25
1942 (July—Dec.)	7.21	4.35	0.44	0.79	1.64

*included in ' Quit '.

As such, the increase would seem to be a natural consequence of the improved employment and of the major shift from non-essential to war industries ; it is also partly explained by the call-up which accounts for most of the figures given under ' miscellaneous separation ' (at the end of 1942 the ' military separation rate ' was about 1.30%). More significant, however, is the fact, that the separation rate increased considerably also in war industries, and that in one of them, *shipbuilding*, it is considerably in excess of the average. The rate of ' quit ' per month in total manufacturing and in shipbuilding developed as follows :

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[1] *Cf.* M. Kalecki, ' The Problems of Profit Margins,' BULLETIN Vol. 4, No. 5, p. 114.

	January 1941	*January 1942*	*January 1943*
Total manufacturing ...	1.31	2.36	4.45
Shipbuilding	1.93	3.25	6.98

The total monthly separation rate in contract shipbuilding for the first quarter of 1943 was given by the *Maritime Commission* as follows :

	U.S. average	*Pacific*	*Atlantic*	*Gulf*	*Great Lakes*
Monthly Separation rate, 1943 1st quarter	11.2%	14.8%	7.1%	10.3%	5.2%

Separation due to call-up accounted for a monthly 2% on the national average in the Maritime Commission's contract shipyards. The high separation rate in shipbuilding is thus mainly due to a high rate of quit and to call-up. The total replacements needed in the first quarter of 1943 were 200,000 men, and the total new accessions of 263,000 men fell short of the required expansion by 70,000 men.[1]

Shipbuilding is one of the most essential and probably the highest paid industry in U.S. The high rate of quit requires therefore some explanation. One of these would be that the conditions in shipbuilding centres, especially in the West, are very bad : housing is deficient, and food shortages are probably greater than elsewhere. The cost of living index on the West Coast has risen considerably more than on the average in U.S. Another explanation is that workers change for higher wages, both within the industry, and between shipbuilding and other industries.

The high labour turnover in a key industry is not only a disadvantage in itself, but also a symptom of not altogether satisfactory handling of the labour problem. This may well apply, to a lesser extent, also to other essential industries. Factors contributing generally to the high labour turnover are, apart from unsatisfactory working conditions, the wage stabilisation and the extensive call-up from essential industries. With the ' freezing ' of wages, undesirable shifts are encouraged, not only between industries but also between firms, especially if the job classification is not uniform (as was up to recently the case in the western aircraft industry). To counteract these tendencies, the President's order of April 8th called for a prohibition of ' changing jobs for higher wages,' except if it is in the interest of the war effort. In consequence, regional arrangements have been made to control the transfer of workers, but these arrangements are apparently far from constituting an ' Essential Work Order.'

The conflict between occupational deferment and deferment of men with dependents has also contributed to the increase in labour turnover.

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[1] *Victory Bulletin, April* 14, 1943.